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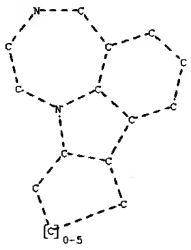

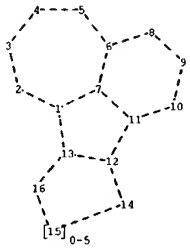

ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
ring bonds :
1-2 1-7 1-13 2-3 3-4 4-5 5-6 6-7 6-8 7-11 8-9 9-10 10-11
11-12 12-13 12-14 13-16 14-15 15-16
exact/norm bonds :
1-2 1-7 1-13 2-3 3-4 4-5 5-6 6-7 6-8 7-11 8-9 9-10 10-11
11-12 12-13 12-14 13-16 14-15 15-16

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom

```
=> d his

     (FILE 'HOME' ENTERED AT 15:24:58 ON 20 FEB 2004)

     FILE 'REGISTRY' ENTERED AT 15:25:16 ON 20 FEB 2004
L1             STRUCTURE UPLOADED
L2             QUE L1
L3           10 S L2
L4          167 S L2 SSS FUL

     FILE 'CAPLUS' ENTERED AT 15:25:49 ON 20 FEB 2004
L5           21 S L4

=> d l2
L2 HAS NO ANSWERS
L1             STR
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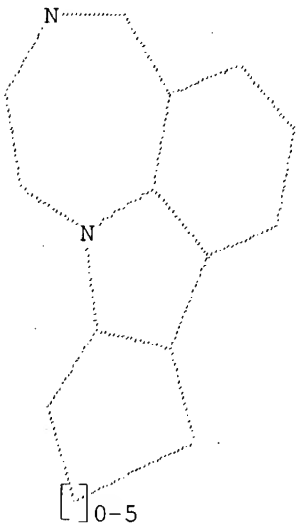


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Structure attributes must be viewed using STN Express query preparation.
L2             QUE  ABB=ON  PLU=ON  L1


=> d ibib abs hitstr 1-21
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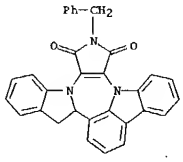
L5 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:325381 CAPLUS
DOCUMENT NUMBER: 139:149484
TITLE: Synthesis of 6H-pyrrolo[3',4':2,3][1,4]diazepino[6,7,1-hi]indole- 8,10(7H,9H)-diones using 3-bromo-4-(indol-1-yl)maleimide scaffold
AUTHOR(S): Lakatosh, Sergey A.; Luzikov, Yuri N.; Preobrazhenskaya, Maria N.
CORPORATE SOURCE: Gause Institute of New Antibiotics, Russian Academy of Medical Sciences, Moscow, 119021, Russia
SOURCE: Organic & Biomolecular Chemistry (2003), 1(5), 826-833 CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:149484

AB Series of 3-arylalkyl- or 3-alkylamino-4-(indol-1-yl)maleimides and bis(indol-1-yl)maleimides were synthesized. The cyclization of the 3-substituted 4-(indol-1-yl)maleimides under the action of acids resulted in the formation of diazepine[1,4] derivs. with indoline and maleimide nuclei annellated. These compds. readily produced the corresponding indolomaleimidodiazepines[1,4] after dehydrogenation.

IT **570432-01-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyrrolodiazepinoindolediones via cyclization of bromo(indolyl)maleimide scaffold followed by dehydrogenation)

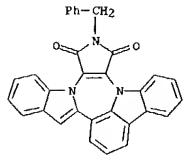
RN 570432-01-8 CAPLUS
CN 9H-Indolo[1',2':4,5]pyrrolo[3',4':2,3][1,4]diazepino[6,7,1-jk]carbazole-9,11(10H)-dione, 17,17a-dihydro-10-(phenylmethyl)- (9CI) (CA INDEX NAME)



IT **570432-02-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of pyrrolodiazepinoindolediones via cyclization of bromo(indolyl)maleimide scaffold followed by dehydrogenation)

RN 570432-02-9 CAPLUS
CN 9H-Indolo[1',2':4,5]pyrrolo[3',4':2,3][1,4]diazepino[6,7,1-jk]carbazole-9,11(10H)-dione, 10-(phenylmethyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

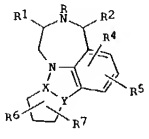
L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:408673 CAPLUS
DOCUMENT NUMBER: 137:6202
TITLE: Preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles as selective 5-HT2c receptor agonists
INVENTOR(S): Sabb, Annmarie Louise; Vogel, Robert Lewis; Nelson, James Albert; Rosenzweig-Lipson, Sharon Joy; Welmaker, Gregory Scott; Sabalski, Joan Eileen; Smith, Michael David; Chan, Anita Wai-Yin; Antane, Madelene Miyoko; Raveendranath, Panolil; Megati, Sreenivasulu
PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

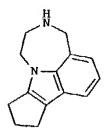
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042304	A2	20020530	WO 2001-US45792	20011101
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002039463	A5	20020603	AU 2002-39463	20011101
EP 1330457	A2	20030730	EP 2001-987225	20011101
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002107242	A1	20020808	US 2001-16331	20011102

PRIORITY APPLN. INFO.: US 2000-245591P P 20001103
US 2000-245593P P 20001103
US 2000-245843P P 20001103
US 2000-245915P P 20001103
US 2000-245954P P 20001103
WO 2001-US45792 W 20011101

OTHER SOURCE(S): MARPAT 137:6202
GI



I



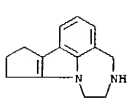
II

AB Cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles [I; R = H, alkyl, acyl, alkylcarbonyl, aryl, heteroaryl, arylcarbonyl, heteroarylcarbonyl; R1, R2 = H, alkyl, fluoroalkyl, cycloalkyl, alkoxy, CH2OH, amino, aryl, heteroaryl, arylcarbonyl, heteroarylcarbonyl, alkylsulfonylamino, alkylaminosulfonyl, etc.; R4, R5 = H, halo, cyano, alkyl, fluoroalkyl, alkoxy, fluoroalkoxy, aryl, heteroaryl, arylcarbonyl, heteroarylcarbonyl, amino, etc.; R6, R7 = H, alkyl, cycloalkyl, cycloalkylmethyl; XY = CHCH, C:C] are prepd. as selective 5-HT2c agonists for use in the treatment of schizophrenia, obsessive-compulsive disorder, depression, anxiety, panic disorder, generalized anxiety disorder, obesity and epilepsy. Cyclopenta[b]indoles are claimed as intermediates in the prepn. of I. E.g., 2,3,4,5-tetrahydro-1H-benzodiazepine is acetylated with Ac2O to give 4-acetyl-2,3,4,5-tetrahydro-1H-1,4-benzodiazepine; addn. of NaNO2 and HCl, redn. of the nitrosamine with Zn in situ, addn. of cyclopentanone, and hydrolysis of the acetyl group gives hexahydrocyclopenta[b][1,4]diazepino[6.7,1-hi]indole II. Biol. data on the binding of selected I to 5-HT2c receptors is given.

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

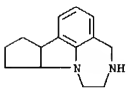
IT **420802-62-6P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of cyclopentadiazepinoindoles as selective 5-HT2c receptor agonists for treatment of schizophrenia and anxiety and depression and obesity)

RN 420802-62-6 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,9,10-hexahydro- (9CI) (CA INDEX NAME)



IT **420802-63-7P 422311-95-3P 422311-96-4P**
422311-97-5P 422311-98-6P 422311-99-7P
425414-33-1P 425414-34-2P 428868-30-8P
428868-31-9P 428868-32-0P 432049-99-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyclopentadiazepinoindoles as selective 5-HT2c receptor agonists for treatment of schizophrenia and anxiety and depression and obesity)

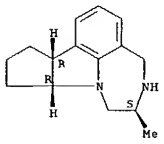
RN 420802-63-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7a,9,10,10a-octahydro- (9CI) (CA INDEX NAME)



RN 422311-95-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,

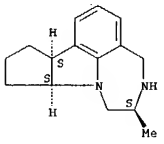
L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2S,7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



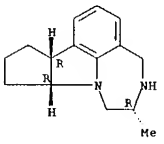
RN 422311-96-4 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2S,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



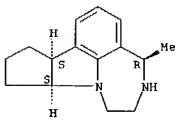
RN 422311-97-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2R,7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

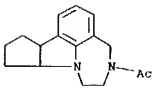


L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
1,2,3,4,7b,9,10,10a-octahydro-4-methyl-, (4R,7bS,10aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

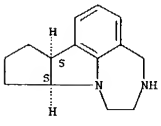


RN 428868-30-8 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro- (9CI) (CA INDEX NAME)



RN 428868-31-9 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7a,9,10,10a-octahydro-, (7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

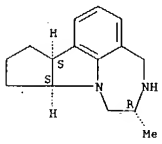


RN 428868-32-0 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7a,9,10,10a-octahydro-, (7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

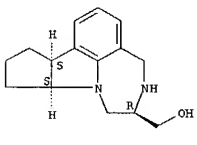
L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RN 422311-98-6 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



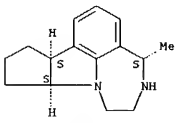
RN 422311-99-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-2-methanol, 1,2,3,4,7b,9,10,10a-octahydro-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



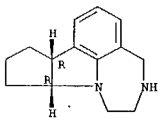
RN 425414-33-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-4-methyl-, (4R,7bR,10aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

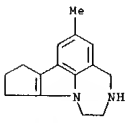


RN 425414-34-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

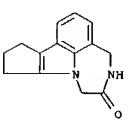


RN 432049-99-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,9,10-hexahydro-6-methyl- (9CI) (CA INDEX NAME)



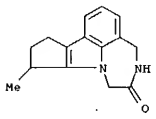
IT **420802-61-5P 420802-85-3P 420802-86-4P**
420802-87-5P 422312-09-2P 422312-10-5P
428868-33-1P 428868-34-2P 428868-35-3P
428868-39-7P 428868-42-2P 432050-03-8P
432050-04-9P 432050-07-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyclopentadiazepinoindoles as selective 5-HT2c receptor agonists for treatment of schizophrenia and anxiety and depression and obesity)

RN 420802-61-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro- (9CI) (CA INDEX NAME)

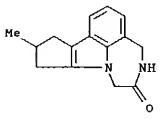


RN 420802-85-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-10-methyl- (9CI) (CA INDEX NAME)

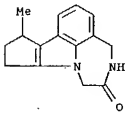
L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 420802-86-4 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-9-methyl- (9CI) (CA INDEX NAME)



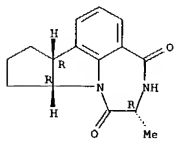
RN 420802-87-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-8-methyl- (9CI) (CA INDEX NAME)



RN 422312-09-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2R,7bR,10aR)- (9CI) (CA INDEX NAME)

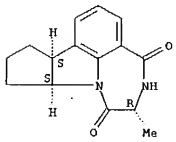
Absolute stereochemistry.

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



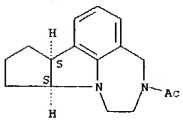
RN 422312-10-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 428868-33-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, (7bS,10aS)- (9CI) (CA INDEX NAME)

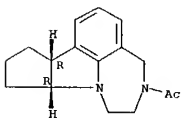
Absolute stereochemistry. Rotation (+).



RN 428868-34-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, (7bR,10aR)- (9CI) (CA INDEX NAME)

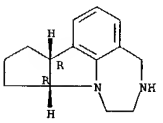
Absolute stereochemistry. Rotation (-).

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



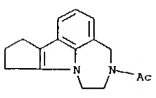
RN 428868-35-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-, monohydrochloride, (7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 428868-39-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,9,10-hexahydro- (9CI) (CA INDEX NAME)



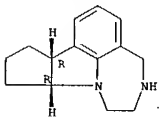
RN 428868-42-2 CAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with (7bR,10aR)-1,2,3,4,7a,9,10,10a-octahydro-8H-cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 428868-32-0
CMF C14 H18 N2

Absolute stereochemistry.

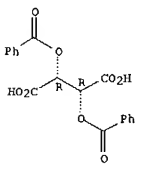
L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



CM 2

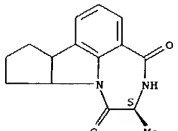
CRN 2743-38-6
CMF C18 H14 O8

Absolute stereochemistry.



RN 432050-03-8 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2S)- (9CI) (CA INDEX NAME)

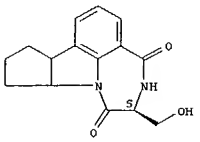
Absolute stereochemistry.



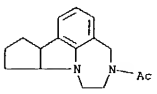
RN 432050-04-9 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-(hydroxymethyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

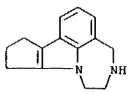


RN 432050-07-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

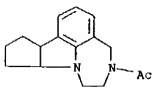


● HCl

L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

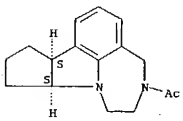


RN 428868-30-8 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro- (9CI) (CA INDEX NAME)



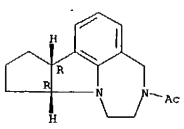
RN 428868-33-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, (7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 428868-34-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, (7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



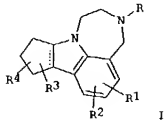
RN 428868-39-7 CAPLUS

Cancel

L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:392263 CAPLUS
DOCUMENT NUMBER: 136:401790
TITLE: Processes for preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles
INVENTOR(S): Sabb, Annmarie L.; Vogel, Robert L.; Antane, Madelene M.; Raveendranath, Panolil; Megati, Sreenivasulu; Smith, Michael D.; Nelson, James A.
PATENT ASSIGNEE(S): American Home Products Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002062022	A1	20020523	US 2001-16420	20011102
PRIORITY APPLN. INFO.:			US 2000-245954P P	20001103

OTHER SOURCE(S): CASREACT 136:401790; MARPAT 136:401790
GI



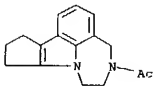
I

AB The title compds. [I; R = H, alkyl; R1, R2 = H, alkyl, alkoxy, halo, etc.; R3, R4 = H, alkyl, cycloalkyl; the dashed line indicates an optional double bond] and their pharmaceutically acceptable salts, which are serotonin 5-HT2C receptor agonists (no biol. data), were prepared E.g., a multi-step synthesis of 1,2,3,4,9,10-hexahydro-8H-cyclopenta[b][4,1]diazepino[6,7,1-hi]indole, was given.

IT **420802-62-6P 428868-30-8P 428868-33-1P 428868-34-2P 428868-39-7P 428868-41-1P 428868-42-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(processes for preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles)

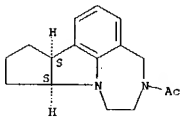
RN 420802-62-6 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,9,10-hexahydro- (9CI) (CA INDEX NAME)

L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,9,10-hexahydro- (9CI) (CA INDEX NAME)



RN 428868-41-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,7b,9,10,10a-octahydro-, monohydrochloride, (7bS,10aS)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



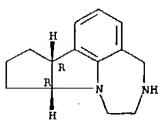
● HCl

RN 428868-42-2 CAPLUS
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with (7bR,10aR)-1,2,3,4,7a,9,10,10a-octahydro-8H-cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 428868-32-0
CMF C14 H18 N2

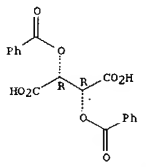
Absolute stereochemistry.



CM 2

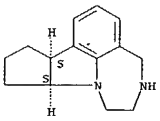
L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CRN 2743-38-6
CMF C18 H14 O8

Absolute stereochemistry.



IT **428868-29-5P 428868-31-9P 428868-32-0P**
428868-35-3P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(processes for preparation of
cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles)
RN 428868-29-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7a,9,10,10a-octahydro-, (7bR,10aR)-rel- (9CI) (CA INDEX NAME)

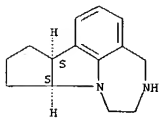
Relative stereochemistry.



RN 428868-31-9 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7a,9,10,10a-octahydro-, (7bS,10aS)- (9CI) (CA INDEX NAME)

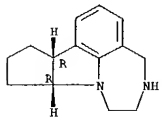
Absolute stereochemistry. Rotation (+).

L5 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



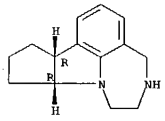
RN 428868-32-0 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7a,9,10,10a-octahydro-, (7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 428868-35-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7b,9,10,10a-octahydro-, monohydrochloride, (7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

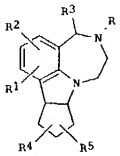


● HCl

L5 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:368996 CAPLUS
DOCUMENT NUMBER: 136:369746
TITLE: Preparation of 1,2,3,4,8,9,10,10a-octahydro-7bH-cyclopenta[b][1,4]diazepino[6,7,1-hi]indoles
INVENTOR(S): Welmaker, Gregory S.; Sabalski, Joan E.; Smith, Michael D.
PATENT ASSIGNEE(S): American Home Products Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002058689	A1	20020516	US 2001-16418	20011102
PRIORITY APPLN. INFO.:			US 2000-245843P P	20001103
OTHER SOURCE(S):		MARPAT 136:369746		

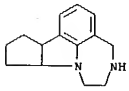
GI



I

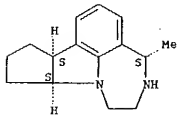
AB Title compds. I [wherein R = H, alkyl, acyl, aryl, aroyl, or -C(O)R'; R' = alkyl or aryl, preferably Ph; R1, R2, R4 and R5 = independently H, OH, (cyclo)alkyl, alkoxy, halo, fluorinated alkyl or alkoxy, CN, alkylsulfonylamino, alkylsulfonamido, alkylamido, (di)alkyl(amino), acyl, aryl, or aroyl; R3 = H, (cyclo)alkyl, alkoxy, fluorinated alkyl, alkylsulfonylamino, alkylsulfonamido, alkylamido, (di)alkyl(amino), fluorinated alkoxy, acyl, aryl, or aroyl; or a pharmaceutically acceptable salt thereof] were prepared from 2-(2,3,3a,8b-tetrahydro-1H-cyclopenta[b]indol-4-yl)ethylamines. For example, Ph hydrazine was treated with cyclopentanone under standard Fischer-indole conditions to give 1,2,3,4-tetrahydrocyclopenta[b]indole (80%). Hydrogenation using Pd/C in concentrated HCl (69%), followed by N-alkylation with 2-chloroacetamide (69%), and reduction using BH3•THF, afforded 2-(2,3,3a,8b-tetrahydrocyclopenta[b]indol-4(1H)-yl)ethylamine. Cycloaddn. of the ethylamine with formaldehyde in EtOH and TFA gave the diazabenzo[cd]cyclopenta[a]azulene I (R-R5 = H). I are 5-hydroxytryptamine 2C (5HT2C) receptor agonists useful for the prevention and treatment of central nervous system disorders (no data).
IT **420802-63-7P 425414-33-1P 425414-34-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of octahydrocyclopenta[b][1,4]diazepino[6,7,1-hi]indoles from

L5 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(tetrahydrocyclopentaindolyl)ethylamines as central nervous system agents)
RN 420802-63-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7a,9,10,10a-octahydro- (9CI) (CA INDEX NAME)



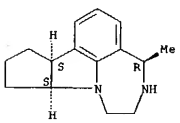
RN 425414-33-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7b,9,10,10a-octahydro-4-methyl-, (4R,7bR,10aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 425414-34-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,
1,2,3,4,7b,9,10,10a-octahydro-4-methyl-, (4R,7bS,10aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

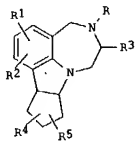


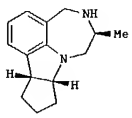
L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:354096 CAPLUS
DOCUMENT NUMBER: 136:355364
TITLE: Preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivatives for the treatment of central nervous system disorders
INVENTOR(S): Welmaker, Gregory S.; Sabalski, Joan E.
PATENT ASSIGNEE(S): American Home Products Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055630	A1	20020509	US 2001-16435	20011102
US 6414144	B2	20020702		

PRIORITY APPLN. INFO.: US 2000-245815P P 20001103
OTHER SOURCE(S): CASREACT 136:355364; MARPAT 136:355364
GI


I


II

AB Cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivs. of formula I [R = H, alkyl, acyl, or aroyl; R1, R2, R4, R5 = H, OH, alkyl, cycloalkyl, alkoxy, halo, fluorinated alkyl, CN, NHSO2-alkyl, amino, aryl, aroyl, etc.; R3 = H, alkyl, cycloalkyl, alkoxy, etc.] are prepared The compds. are useful in the treatment of central nervous system disorders (no data). Thus, II was prepared in 6 steps from 2-hydrazinobenzoic acid hydrochloride, cyclopentanone and L-alanine Et ester.

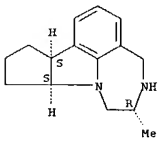
IT **422311-95-3P 422311-96-4P 422311-97-5P 422311-98-6P 422311-99-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivs. for the treatment of central nervous system disorders)

RN 422311-95-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2S,7bR,10aR)- (9CI) (CA INDEX NAME)

L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

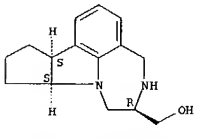
1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 422311-99-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-2-methanol, 1,2,3,4,7b,9,10,10a-octahydro-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

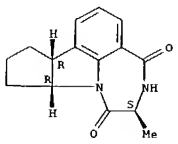
Absolute stereochemistry.



IT **422312-04-7P 422312-05-8P 422312-09-2P 422312-10-5P 422312-15-0P 422312-16-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivs. for the treatment of central nervous system disorders)

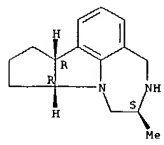
RN 422312-04-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2S,7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



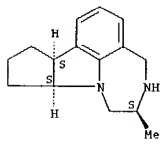
L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

Absolute stereochemistry. Rotation (+).



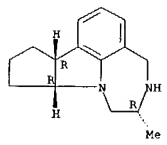
RN 422311-96-4 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2S,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 422311-97-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,10a-octahydro-2-methyl-, (2R,7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

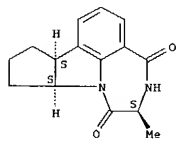


RN 422311-98-6 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine,

L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

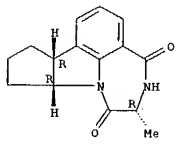
RN 422312-05-8 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2S,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



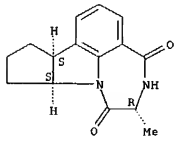
RN 422312-09-2 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2R,7bR,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



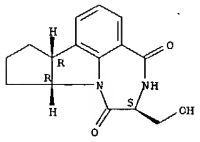
RN 422312-10-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-methyl-, (2R,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



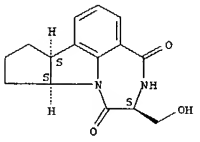
RN 422312-15-0 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-(hydroxymethyl)-, (2S,7bR,10aR)- (9CI) (CA INDEX NAME)

L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
Absolute stereochemistry.



RN 422312-16-1 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine-1,4-dione, 2,3,7b,9,10,10a-hexahydro-2-(hydroxymethyl)-, (2S,7bS,10aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

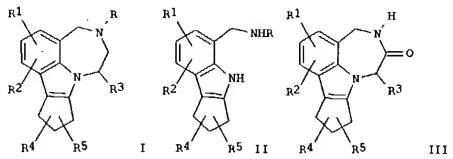


L5 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:354075 CAPLUS
DOCUMENT NUMBER: 136:355253
TITLE: Process for the preparation of 1,2,3,4,8,9,10,10a-octahydro-7bH-cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivatives
INVENTOR(S): Chan, Anita W-y.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055504	A1	20020509	US 2001-16229	20011102
PRIORITY APPLN. INFO.:			US 2000-245591P P	20001103
OTHER SOURCE(S):		CASREACT 136:355253; MARPAT 136:355253		

GI

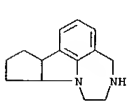


AB This invention provides a process for the preparation of 1,2,3,4,8,9,10,10a-octahydro-7bH-cyclopenta[b][1,4]diazepino[6,7,1-hi]indole derivs. of the general formula (I) (wherein R = H, alkyl, cycloalkyl, CH2-cycloalkyl, acyl, aryl or aroyl; R1, R2, R4, R5 = H, hydroxy, alkyl, cycloalkyl, alkoxy, halogen, fluorinated alkyl, cyano, NHSO2-alkyl, SO2NH-alkyl, alkyl amide, amino, alkylamino, dialkylmino, fluorinated alkoxy, acyl, aryl or aroyl; R3 = H, alkyl, cycloalkyl, alkoxy, fluorinated alkyl, alkyl sulfonamide, alkyl amide, amino, alkylamino, dialkylmino, fluorinated alkoxy, acyl, aryl or aroyl) or a pharmaceutically acceptable salt thereof, as well as intermediates for their synthesis. A process for preparation of I comprises acylation of cyclopentaindolemethylamine derivs. (II; R = H; R1, R2, R4, R5 = same as above) with LCOCH(R3)L (R3 = same as above; L = a leaving group), cyclization of the resulting II [R = COCH(R3)L; L, R1, R2, R4, R5 = same as above] to diazabenzo[cd]cyclopenta[a]azulen-6-one derivs. (III; R1-R5 = same as above), and reduction of III to II (R = H; R1-R5 = same as above), followed by optional N-alkylation. These compds. are useful as serotonin 5-hydroxytryptamine 2C (5HT2C) receptor agonists for the treatment of

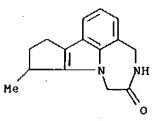
L5 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
central nervous system disorders, including obsessive-compulsive disorder, depression, anxiety, generalized anxiety disorder, schizophrenia, panic disorder, migraine, sleep disorders such as sleep apnea, eating disorders such as hyperphagia, obesity, epilepsy, and spinal cord injury (no data). Thus, a soln. of 1,2,3,4-tetrahydrocyclopenta[b]indol-5-ylmethylamine (100 mg) and pyridine (0.1 mL) in CH2Cl2 (2 mL) was cooled to 0-5° in an ice-bath, treated with chloroacetyl chloride (62 μL), stirred in the ice-bath for 1 h, warmed to room temp., and stirred for 12 h to give 57% 2-chloro-N-[1,2,3,4-tetrahydrocyclopenta[b]indol-5-ylmethyl]acetamide (IV). A soln. of IV (135 mg) in DMF (3 mL) was added to a suspension of NaH (124 mg) in DMF (3 mL) and allowed to react for 16 h to give 58% 3,4,9,10-tetrahydro-8H-cyclopenta[b][1,4]diazepino[6,7,1-hi]indol-2(1H)-one (V). To a suspension of 67 mg V in 7 mL Et2O was added slowly 28 mg LiAlH4 at room temp. and allowed to react for 16 h to give 70% 3,4,9,10-tetrahydro-8H-cyclopenta[b][4]diazepino[6,7,1-hi]indole, i.e. I (R-R5 = H), which (61 mg) was dissolved in CF3CO2H (2 mL), cooled in an ice-bath, treated slowly with BH3.THF (0.7 mL), and allowed to react for 4 h to give 1,2,3,4,8,9,10,10a-octahydro-7bH-cyclopenta[b][4,1]diazepino[6,7,1-hi]Indole.

IT **420802-63-7P 420802-85-3P 420802-86-4P 420802-87-5P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of octahydrocyclo[b][1,4]diazepino[hi]indoles via N-acylation of tetrahydrocyclopentaindolylmethylamines and cyclization of (acylaminomethyl)tetrahydrocyclopentaindoles to tetrahydrocyclopenta[b][1,4]diazepino[6,7,1-hi]indolones)

RN 420802-63-7 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7a,9,10,10a-octahydro- (9CI) (CA INDEX NAME)

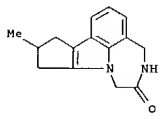


RN 420802-85-3 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-10-methyl- (9CI) (CA INDEX NAME)

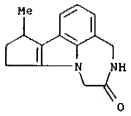


RN 420802-86-4 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-9-methyl- (9CI) (CA INDEX NAME)

L5 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

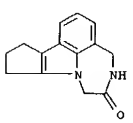


RN 420802-87-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro-8-methyl- (9CI) (CA INDEX NAME)



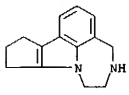
IT **420802-61-5P 420802-62-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of octahydrocyclo[b][1,4]diazepino[hi]indoles via N-acylation of tetrahydrocyclopentaindolylmethylamines and cyclization of (acylaminomethyl)tetrahydrocyclopentaindoles to tetrahydrocyclopenta[b][1,4]diazepino[6,7,1-hi]indolones)

RN 420802-61-5 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepin-2(1H)-one, 3,4,9,10-tetrahydro- (9CI) (CA INDEX NAME)



RN 420802-62-6 CAPLUS
CN 8H-Cyclopenta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,9,10-hexahydro- (9CI) (CA INDEX NAME)

L5 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

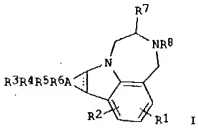


L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:353459 CAPLUS
DOCUMENT NUMBER: 136:355252
TITLE: Preparation of diazepinocarbazoles and related compounds as serotonin 5-HT2C agonists.
INVENTOR(S): Sabb, Annmarie Louise; Vogel, Robert Lewis; Welmaker, Gregory Scott; Sabalski, Joan Eileen
PATENT ASSIGNEE(S): John Wyeth and Brother Ltd., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036596	A2	20020510	WO 2001-US46084	20011101
WO 2002036596	A3	20021024		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002027170	A5	20020515	AU 2002-27170	20011101
US 2002086860	A1	20020704	US 2001-17738	20011102
US 6503900	B2	20030107		
US 2002119966	A1	20020829	US 2001-16228	20011102
US 2002128261	A1	20020912	US 2001-16743	20011102
PRIORITY APPLN. INFO.:			US 2000-245598P P	20001103
			US 2000-245599P P	20001103
			US 2000-245602P P	20001103
			WO 2001-US46084 W	20011101

OTHER SOURCE(S): MARPAT 136:355252
GI



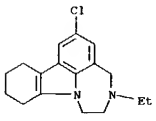
AB A method of treatment of obsessive-compulsive disorder, obesity, eating

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

disorders, sleeping disorders, migraine, depression, generalized anxiety disorder, schizophrenia, panic disorder, migraine, epilepsy or anxiety in a mammal, the method comprises administration of title compds. (I; A = 6-8 membered cycloalkyl ring; R1, R2 = H, alkyl, cycloalkyl, cycloalkylmethyl, alkoxy, halo, fluoroalkyl, cyano, alkylaminosulfonyl, amino, fluoroalkoxy, aroyl, heteroaroyl etc.; R3-R6 = H, alkyl, cycloalkyl, cycloalkylmethyl, alkoxy, cycloalkoxy; R7, R8 = H, alkyl; dashed line = optional double bond). Thus, 4-acetyl-2,3,4,5-tetrahydro-1H-1,4-benzodiazepine (prepn. given) in aq. HCl was treated with NaNO2 under ice cooling to give an oil which in HOAc was treated with Zn. The resulting mixt. was filtered into a flask contg. cyclohexanone followed by heating for 1.5 h to give 3-acetyl-1,2,3,4,8,9,10,11-octahydro[1,4]diazepino[6,7,1-jk]carbazole. The latter was refluxed 4 h with conc. HCl to give 1,2,3,4,8,9,10,11-octahydro[1,4]diazepino[6,7,1-jk]carbazole hydrochloride. This reduced food intake in rats with ED50 = 20.86 mg/kg i.p.

IT **57716-82-2P 57756-44-2P 57756-45-3P**
57756-54-4P 59705-12-3P 422318-14-7P
422318-15-8P 422318-16-9P 422318-17-0P
422318-18-1P 422318-19-2P 422318-20-5P
422318-21-6P 422318-22-7P 422318-23-8P
422318-24-9P 422318-25-0P 422318-26-1P
422318-27-2P 422318-28-3P 422318-29-4P
422318-30-7P 422318-33-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diazepinocarbazoles and related compds. as serotonin 5HT2C agonists)

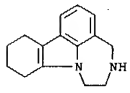
RN 57716-82-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

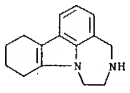
RN 57756-44-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

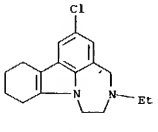


● HCl

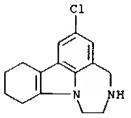
RN 57756-45-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



RN 57756-54-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

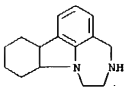


RN 59705-12-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

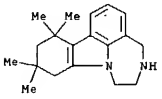


RN 422318-14-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,7b,8,9,10,11,11a-decahydro-

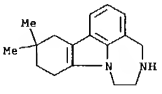
L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(9CI) (CA INDEX NAME)



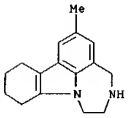
RN 422318-15-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



RN 422318-16-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-9,9-dimethyl- (9CI) (CA INDEX NAME)

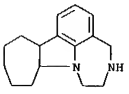


RN 422318-17-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-6-methyl- (9CI) (CA INDEX NAME)

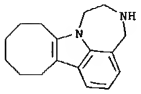


RN 422318-18-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-2-methyl-,

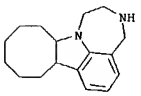
L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



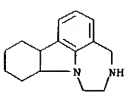
RN 422318-22-7 CAPLUS
CN Cycloocta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,8,9,10,11,12,13-decahydro- (9CI) (CA INDEX NAME)



RN 422318-23-8 CAPLUS
CN Cycloocta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,8,9,10,11,12,13,13a-dodecahydro- (9CI) (CA INDEX NAME)



RN 422318-24-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,7b,8,9,10,11,11a-decahydro-, dihydrochloride (9CI) (CA INDEX NAME)

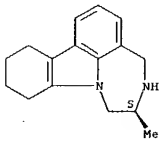


● 2 HCl

RN 422318-25-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-8,8,10,10-tetramethyl-, monohydrochloride (9CI) (CA INDEX NAME)

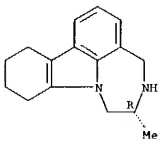
L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

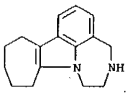


RN 422318-19-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

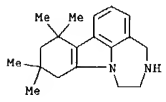


RN 422318-20-5 CAPLUS
CN 8H-Cyclohepta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,9,10,11,12-octahydro- (9CI) (CA INDEX NAME)



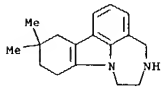
RN 422318-21-6 CAPLUS
CN 8H-Cyclohepta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,7b,9,10,11,12,12a-decahydro- (9CI) (CA INDEX NAME)

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



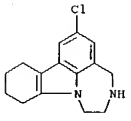
● HCl

RN 422318-26-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-9,9-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

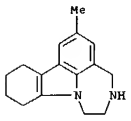
RN 422318-27-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 422318-28-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-6-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

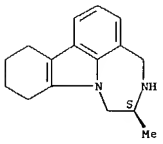
L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



● HCl

RN 422318-29-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-2-methyl-, monohydrochloride, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

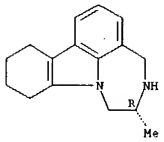


● HCl

RN 422318-30-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-2-methyl-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

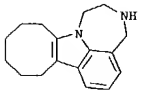
Absolute stereochemistry.

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



● HCl

RN 422318-33-0 CAPLUS
CN Cycloocta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 1,2,3,4,8,9,10,11,12,13-decahydro-, monohydrochloride (9CI) (CA INDEX NAME)

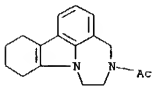


● HCl

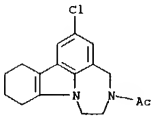
IT **57756-41-9P 57756-42-0P 422318-34-1P 422318-37-4P 422318-41-0P 422318-44-3P 422318-45-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of diazepinocarbazoles and related compds. as serotonin 5HT2C agonists)

RN 57756-41-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

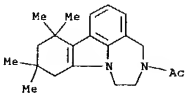
L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



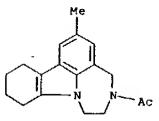
RN 57756-42-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-6-chloro-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



RN 422318-34-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



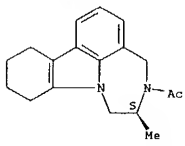
RN 422318-37-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro-6-methyl- (9CI) (CA INDEX NAME)



RN 422318-41-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro-2-methyl-, (2S)- (9CI) (CA INDEX NAME)

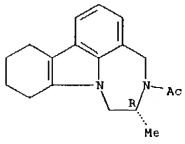
Absolute stereochemistry.

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

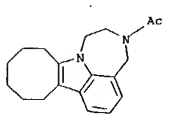


RN 422318-44-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro-2-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 422318-45-4 CAPLUS
CN Cycloocta[4,5]pyrrolo[3,2,1-jk][1,4]benzodiazepine, 3-acetyl-1,2,3,4,8,9,10,11,12,13-decahydro- (9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:453066 CAPLUS
DOCUMENT NUMBER: 135:61239
TITLE: Preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases
INVENTOR(S): Al-Awar, Rima Salim; Hecker, Kyle Andrew; Huang, Jianping; Joseph, Sajan; Li, Tiechao; Paal, Michael; Rathnachalam, Radhakrishnan; Ray, James Edward; Shih, Chuan; Waid, Philip Parker; Zhou, Xun; Zhu, Guoxin
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 261 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044247	A2	20010621	WO 2000-US33273	20001218
WO 2001044247	A3	20020103		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1242420	A2	20020925	EP 2000-984043	20001218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003229026	A1	20031211	US 2002-130493	20021202

PRIORITY APPLN. INFO.: US 1999-171087P P 19991216
US 1999-171220P P 19991216
WO 2000-US33273 W 20001218
OTHER SOURCE(S): CASREACT 135:61239; MARPAT 135:61239
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; A, B = O, S; X, Y = H; or X and Y, taken together, form a bond; R1 = H, alkyl; R2 = halo, CN, alkyl, etc.; R3 = aryl, heteroaryl, etc.; R4 = H, alkyl, etc.; R5 = halo, CN, alkyl, etc.; R6 = alkyl; R7 = alkoxycarbonyl, (CH2)mZ (m = 0-5; Z = halo, OH, etc.); Q1 = O, SOn (n = 0-2), (CH2)1-3; Q2 = carbon-carbon single or double bond, etc.; Q3 = (CH2)1-3], useful for inhibiting CDK4, were prepared and formulated. E.g., a multi-step synthesis of II which showed activity (0.1055 μM) in assay of cyclin D1-CDK4 kinase with the ING peptide as substrate, and also was found to inhibit cell growth and Rb (retinoblastoma protein) phosphorylation, was given.

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
IT **345261-34-9P 345262-55-7P 345262-56-8P**
345262-59-1P 345262-63-7P 345262-82-0P
345262-85-3P 345262-98-8P 345263-00-5P
345263-02-7P 345263-06-1P 345263-22-1P
345263-25-4P 345263-28-7P 345263-32-3P
345263-34-5P 345263-38-9P 345263-44-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)
RN 345261-34-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-2-propanoic acid, 3-[(1,1-dimethylethoxy)carbonyl]-1,2,3,4,8,9,10,15-octahydro-8,10-dioxo-, 1,1-dimethylethyl ester, (2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-55-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 2-[(1,1-dimethylethoxy)methyl]-1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-56-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 2-[(1,1-dimethylethoxy)methyl]-1,2,3,4-tetrahydro-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-59-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-2-methyl-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-63-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-2-[(4-hydroxyphenyl)methyl]-8,10-dioxo-, 1,1-dimethylethyl ester, (2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-82-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-85-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 13-fluoro-1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RN 345262-98-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]methylamino]butyl]-1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester, (2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-00-5 CAPLUS
CN Carbamic acid, [(1S)-2-(1,2,8,9,10,15-hexahydro-2-methyl-8,10-dioxo[1,4]diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazol-3(4H)-yl)-1-methyl-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-02-7 CAPLUS
CN Carbamic acid, [(1S)-2-(1,2,8,9,10,15-hexahydro-2-methyl-8,10-dioxo[1,4]diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazol-3(4H)-yl)-2-oxo-1-(3-pyridinylmethyl)ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-06-1 CAPLUS
CN Carbamic acid, [(1S)-2-(1,2,8,9,10,15-hexahydro-8,10-dioxo[1,4]diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazol-3(4H)-yl)-2-oxo-1-(3-pyridinylmethyl)ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-22-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-15-methyl-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-25-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-8,10-dioxo-12-phenoxy-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-28-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 12,13-difluoro-1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-32-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-8,10-dioxo-13-(trifluoromethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-34-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 12-fluoro-1,2,8,9,10,15-hexahydro-8,10-dioxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-38-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
carboxylic acid, 1,2,8,9,10,15-hexahydro-8,10-dioxo-14-[2-[[tris(1-methylethyl)silyl]oxy]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-44-7 CAPLUS
CN Carbamic acid, [2-(1,2,8,9,10,15-hexahydro-8,10-dioxo[1,4]diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazol-3(4H)-yl)-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **345262-57-9P 345262-60-4P 345262-64-8P**
345262-83-1P 345262-86-4P 345262-99-9P
345263-01-6P 345263-03-8P 345263-05-0P
345263-07-2P 345263-08-3P 345263-09-4P
345263-10-7P 345263-11-8P 345263-12-9P
345263-23-2P 345263-26-5P 345263-29-8P
345263-33-4P 345263-35-6P 345263-39-0P
345263-40-3P 345263-41-4P 345263-42-5P
345263-43-6P 345263-45-8P 345263-91-4P
345263-93-6P 345263-96-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)
RN 345262-57-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-(hydroxymethyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-60-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-64-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-[(4-hydroxyphenyl)methyl]-, monohydrochloride, (2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-83-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-86-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 13-fluoro-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345262-99-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-[4-(methylamino)butyl]-, dihydrochloride,

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-01-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 3-[(2S)-2-amino-1-oxopropyl]-1,2,3,4-tetrahydro-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-03-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 3-[(2S)-2-amino-1-oxo-3-(3-pyridinyl)propyl]-1,2,3,4-tetrahydro-2-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-05-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 3-[(2S)-2,6-diamino-1-oxohexyl]-1,2,3,4-tetrahydro-2-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-07-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 3-[(2S)-2-amino-1-oxo-3-(3-pyridinyl)propyl]-1,2,3,4-tetrahydro-, dihydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-08-3 CAPLUS
CN 11H,13H,15H-1ndolo[2,3-a]oxazolo[4',3':3,4][1,4]diazepino[6,7,1-jk]pyrrolo[3,4-c]carbazole-5,7,13(6H,10H)-trione, 15a,16-dihydro-, (15aR)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-09-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-3-(methylsulfonyl)-2-[[(methylsulfonyl)oxy]methyl]-, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-10-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-(hydroxymethyl)-3-(4-pyridinylcarbonyl)-, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-11-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-2-propanoic acid, 1,2,3,4,8,9,10,15-octahydro-8,10-dioxo-, methyl ester, monohydrochloride, (2S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-12-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-2-propanoic acid, 1,2,3,4,8,9,10,15-octahydro-8,10-dioxo-, monohydrochloride, (2S)- (9CI) (CA INDEX NAME)

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-3-(1-methylethyl)-, monomethanesulfonate (9CI) (CA INDEX NAME)

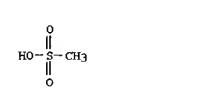
CM 1

CRN 345263-42-5
CMF C26 H22 N4 O2

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 345263-45-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 3-(aminoacetyl)-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-91-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-14-(3-hydroxypropyl)-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-93-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-13-(3-hydroxypropyl)-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-96-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-14-(hydroxymethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **345265-34-1 345265-35-2 345265-36-3 345265-37-4 345265-38-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 11H,12H,14H-pyrrolo[3,4-c]quinolino[8',8a',1':3,2,1]-pyrrolo[2,3-a]carbazole-5,7-diones for the treatment of proliferative diseases)
RN 345265-34-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-methyl- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-23-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-15-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-26-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-12-phenoxy-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-29-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 12,13-difluoro-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-33-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-13-(trifluoromethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-35-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 12-fluoro-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-39-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-14-(2-hydroxyethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-40-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-41-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-3-[(1-methyl-1H-imidazol-4-yl)sulfonyl]-, monohydrochloride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-42-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-3-(1-methylethyl)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345263-43-6 CAPLUS

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RN 345265-35-2 CAPLUS
CN Carbamic acid, [(1S)-1-[(1,2,8,9,10,15-hexahydro-2-methyl-8,10-dioxo[1,4]diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazol-3(4H)-yl)carbonyl]-1,5-pentanediyl]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345265-36-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345265-37-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-3(4H)-carboxylic acid, 1,2,8,9,10,15-hexahydro-2-(hydroxymethyl)-8,10-dioxo-, 1,1-dimethylethyl ester, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 345265-38-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H,15H)-dione, 1,2,3,4-tetrahydro-2-(hydroxymethyl)-, (2R)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:453056 CAPLUS
DOCUMENT NUMBER: 135:61238
TITLE: Preparation of maleimide and carbazole derivatives for the treatment of proliferative diseases
INVENTOR(S): Al-Awar, Rima Salim; Hecker, Kyle Andrew; Huang, Jianping; Joseph, Sajan; Ray, James Edward; Waid, Philip Parker
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

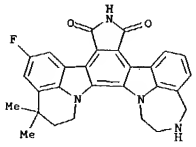
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044235	A2	20010621	WO 2000-US33274	20001218
WO 2001044235	A3	20020117		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1250334	A2	20021023	EP 2000-989233	20001218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003092676	A1	20030515	US 2002-130801	20020521

PRIORITY APPLN. INFO.: US 1999-171219P P 19991216
US 1999-171269P P 19991216
WO 2000-US33274 W 20001218
OTHER SOURCE(S): MARPAT 135:61238
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

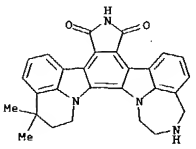
AB The title compds. [I; A, B = O, S; X, Y = H; or X and Y, taken together, form a bond; R1 = H, alkyl; R5, R51 = halo, CN, alkyl, etc.; R6, R61 = alkyl; R7, R71 = alkoxycarbonyl, (CH2)mZ; Z = halo, OH, CO2H, etc.; Q1, Q6 = O, SOn, (CH2)1-3; Q2, Q5 = carbon-carbon single or double bond, NH, etc.; Q3, Q4 = (CH2)1-3; m = 0-5; n = 0-2], useful for inhibiting CDK4, were prepared and formulated. E.g., a multi-step synthesis of II.HCl which showed activity (0.6051 μM) in assay of cyclin D1-cdk4 kinase with the ING peptide as substrate, was given. Some of compds. I were found to inhibit cell growth and to inhibit Rb (retinoblastoma protein) phosphorylation.
IT **345333-99-5P 345334-05-6P 345334-17-0P 345334-29-4P**

L5 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



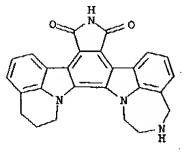
● HCl

RN 345334-29-4 CAPLUS
CN 8H,14H-[1,4]Diazepino[6,7,1-jk]pyrido[1',2',3':1,7]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H)-dione, 1,2,3,4,15,16-hexahydro-14,14-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



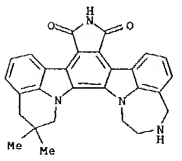
● HCl

L5 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of maleimide and carbazole derivs. for the treatment of proliferative diseases)
RN 345333-99-5 CAPLUS
CN 8H,14H-[1,4]Diazepino[6,7,1-jk]pyrido[1',2',3':1,7]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H)-dione, 1,2,3,4,15,16-hexahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

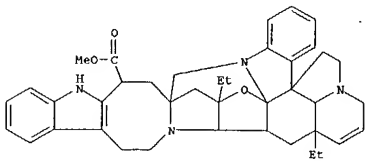
RN 345334-05-6 CAPLUS
CN 8H,14H-[1,4]Diazepino[6,7,1-jk]pyrido[1',2',3':1,7]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H)-dione, 1,2,3,4,15,16-hexahydro-15,15-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 345334-17-0 CAPLUS
CN 8H,14H-[1,4]Diazepino[6,7,1-jk]pyrido[1',2',3':1,7]indolo[2,3-a]pyrrolo[3,4-c]carbazole-8,10(9H)-dione, 12-fluoro-1,2,3,4,15,16-hexahydro-14,14-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:204858 CAPLUS
DOCUMENT NUMBER: 108:204858
TITLE: Carbon-13 NMR spectroscopy of indole derivatives
AUTHOR(S): Morales-Rios, M. S.; Espineira, J.; Joseph-Nathan, P.
CORPORATE SOURCE: Cent. Invest. Estud. Avanzados, Inst. Politec. Nac., Mexico City, 07000, Mex.
SOURCE: Magnetic Resonance in Chemistry (1987), 25(5), 377-95
CODEN: MRCHEG; ISSN: 0749-1581
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The chemical shifts of 298 naturally occurring and synthetic compds. containing
the indole chromophoric group are listed. Substituent effects on 13C chemical shifts (SCS) induced by substitution on the heteroarom.
five-membered ring are discussed. The data provide a reference set for future
13C NMR investigations and highlight the need for unambiguous exptl. evidence to resolve controversial assignments for differently substituted representative indole derivs. Many original assignments have been changed, and values not considered to be unambiguously assigned are delineated. The 1J(CH) values for the parent indole were measured.
IT **84732-47-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(carbon-13 NMR chemical shifts of)
RN 84732-47-8 CAPLUS
CN 3,7-Secoervafoline, 14',15'-deepoxy-2,7,14',15'-tetradehydro-2,16-dihydro-, (16α)- (9CI) (CA INDEX NAME)

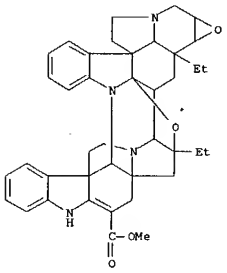


L5 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1984:526863 CAPLUS
DOCUMENT NUMBER: 101:126863
TITLE: Indole alkaloids from Stenosolen heterophyllus: tabernamine and isotabernamine
AUTHOR(S): Kan, Christiane; Henriques, Amelia; Jasor, Yves; Moretti, Christian; Husson, Henri Philippe
CORPORATE SOURCE: Inst. Chim. Subst. Nat., CNRS, Gif-sur-Yvette, 91190, Fr.
SOURCE: Journal of Natural Products (1984), 47(3), 478-81
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: French

AB Seventeen known indole alkaloids were isolated from S. heterophyllus (Apocynaceae). Spectral analyses and partial synthesis confirmed the previously proposed structure of tabernamine, a dimeric alkaloid of the voacamine type. Isotabernamine, an isomeric compound at position C-10, was formed along with tabernamine in the condensation of vobasinol and ibogamine.

IT **70545-44-7 77784-39-5 77784-40-8 77794-87-7**
RL: BIOL (Biological study)
(from Stenosolen heterophyllus)

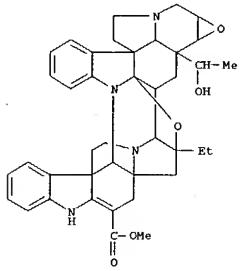
RN 70545-44-7 CAPLUS
CN 13a,20a,23-Metheno-8H,10H,23H-indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]oxireno[6,7]indolizino[8,1-cd]carbazole-19-carboxylic acid, 9b,21a-diethyl-5,6,8a,9a,9b,9c,10a,10b,12,13,18,20,21,21a-tetradecahydro-, methyl ester, (4bR,8aR,9aS,9bS,9cS,10aS,10bS,13aS,20aS,21aS,22aR,23S,24S)- (9CI) (CA INDEX NAME)



RN 77784-39-5 CAPLUS
CN 14a,21a,24-Metheno-8H,11H,24H-indolizino[8,1-cd]indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]carbazole-20-carboxylic acid, 10a,22a-diethyl-5,6,10a,10b,11a,11b,13,14,19,21,22,22a-dodecahydro-,

L5 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
methyl ester, (4bR,10aR,10bS,11aS,11bS,14aS,21aS,22aS,23aR,25S)- (9CI) (CA INDEX NAME)

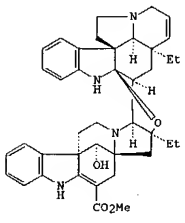
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 77784-40-8 CAPLUS
CN Ervafoline, 19'-hydroxy- (9CI) (CA INDEX NAME)



RN 77794-87-7 CAPLUS
CN Ervafoline, 14',15'-deepoxy-14',15'-didehydro-19'-hydroxy- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:104293 CAPLUS
DOCUMENT NUMBER: 98:104293
TITLE: Bisindole alkaloids of Pandaca caducifolia
AUTHOR(S): Zeches, Monique; Lukacs, Gabor; Massiot, Georges; Le Men-Olivier, Louisette
CORPORATE SOURCE: Fac. Pharm., Reims, Fr.
SOURCE: Journal of Natural Products (1982), 45(6), 707-13
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Two novel bisindole alkaloids were isolated from P. caducifolia, ervafolidene (I) and epi-ervafolidene. Their structures were established by spectral anal. (especially 13C NMR) and by comparison with the known alkaloid ervafolene (II), also isolated from the plant. Several unusual reactions of II are described, among which is a rearrangement pertaining to the pandoline moiety of the mol.

IT **77784-39-5**
RL: BIOL (Biological study)
(of Pandaca caducifolia, properties of)

RN 77784-39-5 CAPLUS
CN 14a,21a,24-Metheno-8H,11H,24H-indolizino[8,1-cd]indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]carbazole-20-carboxylic acid, 10a,22a-diethyl-5,6,10a,10b,11a,11b,13,14,19,21,22,22a-dodecahydro-, methyl ester, (4bR,10aR,10bS,11aS,11bS,14aS,21aS,22aS,23aR,25S)- (9CI) (CA INDEX NAME)

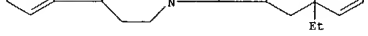
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **84716-79-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 84716-79-0 CAPLUS
CN Ervafoline, 1-acetyl-14',15'-deepoxy-14',15'-didehydro-2,16-dihydro- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
IT **84716-78-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by ervafolene acid hydrolysis)

RN 84716-78-9 CAPLUS
CN 3,7-Secoervafoline, 14',15'-deepoxy-2,7,14',15'-tetradehydro-16-de(methoxycarbonyl)-2,16-dihydro- (9CI) (CA INDEX NAME)

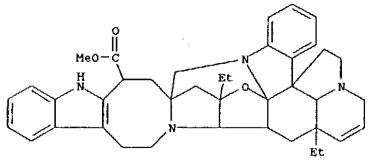


IT **76881-05-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by ervafolene catalytic hydrogenation)

RN 76881-05-5 CAPLUS
CN 14a,21a,24-Metheno-8H,11H,24H-indolizino[8,1-cd]indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]carbazole-20-carboxylic acid, 10a,22a-diethyl-5,6,9,10,10a,10b,11a,11b,13,14,19,21,22,22a-tetradecahydro-, methyl ester, [10aS-(4bS*,10aα,10bα,11a.alpha.,11bβ,14aα,21aα,22aβ,23aS*,24α,25R*)]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **84732-47-8P 84732-48-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by ervafolene reduction)

RN 84732-47-8 CAPLUS
CN 3,7-Secoervafoline, 14',15'-deepoxy-2,7,14',15'-tetradehydro-2,16-dihydro-, (16α)- (9CI) (CA INDEX NAME)



RN 84732-48-9 CAPLUS
CN Ervafoline, 14',15'-deepoxy-14',15'-didehydro-2,16-dihydro- (9CI) (CA INDEX NAME)

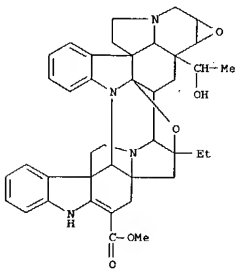
L5 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 77784-39-5 CAPLUS
CN 14a,21a,24-Metheno-8H,11H,24H-indolizino[8,1-cd]indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]carbazole-20-carboxylic acid, 10a,22a-diethyl-5,6,10a,10b,11a,11b,13,14,19,21,22,22a-dodecahydro-, methyl ester, (4bR,10aR,10bS,11aS,11bS,14aS,21aS,22aS,23aR,25S)- (9CI) (CA INDEX NAME)

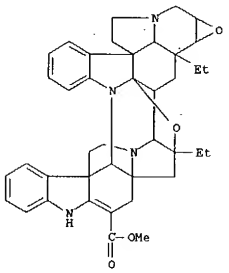
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 77784-40-8 CAPLUS
CN Ervafoline, 19'-hydroxy- (9CI) (CA INDEX NAME)



RN 77794-87-7 CAPLUS
CN Ervafoline, 14',15'-deepoxy-14',15'-didehydro-19'-hydroxy- (9CI) (CA INDEX NAME)

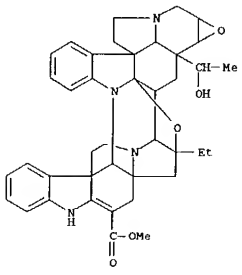
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1982:82682 CAPLUS
DOCUMENT NUMBER: 96:82682
TITLE: New dimeric indole alkaloids from Stenosolen heterophyllus: structure determinations and synthetic approach
AUTHOR(S): Henriques, Amelia; Kan, Christiane; Chiaroni, Angele; Riche, Claude; Husson, Henri Philippe; Kan, Siew Kwong; Lounasmaa, Mauri
CORPORATE SOURCE: Inst. Chim. Subst. Nat., Gif-sur-Yvette, F-91190, Fr.
SOURCE: Journal of Organic Chemistry (1982), 47(5), 803-11
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Alkaloids of the ervafolidine family, ervafolidine (I), 3-epi-ervafolidine, 19'(R)-hydroxyervafolidine, and 19'-hydroxyepiervafolidine, were isolated from leaves of S. heterophyllus. Structures of these compds. and of 4 dimeric indole alkaloids of the ervafoline series were determined by mass spectrometry, 1H NMR, 13C NMR, and x-ray crystallog. A biogenetic pathway to take into account the formation of these alkaloids, and a synthetic approach based on this proposal was developed for the ervafoline series.
IT **70545-44-7 77784-39-5 77784-40-8 77794-87-7**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Stenosolen heterophyllus)
RN 70545-44-7 CAPLUS
CN 13a,20a,23-Metheno-8H,10H,23H-indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]oxireno[6,7]indolizino[8,1-cd]carbazole-19-carboxylic acid, 9b,21a-diethyl-5,6,8a,9a,9b,9c,10a,10b,12,13,18,20,21,21a-tetradecahydro-, methyl ester, (4bR,8aR,9aS,9bS,9cS,10aS,10bS,13aS,20aS,21aS,22aR,23S,24S)- (9CI) (CA INDEX NAME)



L5 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:407560 CAPLUS
DOCUMENT NUMBER: 95:7560
TITLE: Determination of structures by proton NMR at 400 MHz: alkaloids of Stenosolen heterophyllus
AUTHOR(S): Henriques, Amelia; Kan, Christiane; Husson, Henri Philippe; Kan, Siew-Kwong; Lounasmaa, Mauri
CORPORATE SOURCE: Inst. Chim. Subst. Nat., Gif-sur-Yvette, F-91190, Fr.
SOURCE: Acta Chemica Scandinavica, Series B: Organic Chemistry and Biochemistry (1980), B34(7), 509-12
CODEN: ACBOCV; ISSN: 0302-4369
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structures of three new dimeric indole alkaloids, 19'-hydroxyervafoline (I) ervafolene (II, R = H) and 19'-hydroxyervafolene II (R = HO), isolated from the leaves of Stenosolen heterophyllus, were determined
by their NMR spectra.
IT **77784-39-5 77784-40-8 77794-87-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(new alkaloid from Stenosolen, structure of, NMR in relation to)
RN 77784-39-5 CAPLUS
CN 14a,21a,24-Metheno-8H,11H,24H-indolizino[8,1-cd]indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]carbazole-20-carboxylic acid, 10a,22a-diethyl-5,6,10a,10b,11a,11b,13,14,19,21,22,22a-dodecahydro-, methyl ester, (4bR,10aR,10bS,11aS,11bS,14aS,21aS,22aS,23aR,25S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 77784-40-8 CAPLUS
CN Ervafoline, 19'-hydroxy- (9CI) (CA INDEX NAME)



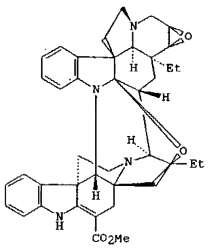
RN 77794-87-7 CAPLUS
CN Ervafoline, 14',15'-deepoxy-14',15'-didehydro-19'-hydroxy- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L5 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L5 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1980:181449 CAPLUS
DOCUMENT NUMBER: 92:181449
TITLE: A 400 MHz proton NMR study of the dimeric indole alkaloid ervafoline
AUTHOR(S): Henriques, Amelia; Kan, Siew-Kwong; Lounasmaa, Mauri
CORPORATE SOURCE: Inst. Chim. Subst. Nat., Gif-sur-Yvette, F-91190, Fr.
SOURCE: Acta Chemica Scandinavica, Series B: Organic Chemistry and Biochemistry (1979), B33(10), 775-6
CODEN: ACBOCV; ISSN: 0302-4369
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

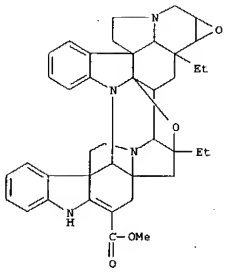
AB Consecutive double resonance expts. were used to discover all 44 protons in the NMR of ervafoline (I).

IT **70545-44-7**
RL: PRP (Properties)
(NMR of)

RN 70545-44-7 CAPLUS

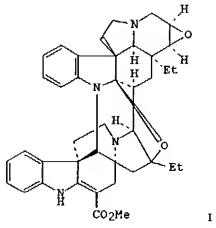
CN 13a,20a,23-Metheno-8H,10H,23H-indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]oxireno[6,7]indolizino[8,1-cd]carbazole-19-carboxylic acid, 9b,21a-diethyl-5,6,8a,9a,9b,9c,10a,10b,12,13,18,20,21,21a-tetradecahydro-, methyl ester, (4bR,8aR,9aS,9bS,9cS,10aS,10bS,13aS,20aS,21aS,22aR,23S,24S)- (9CI) (CA INDEX NAME)

L5 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



L5 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:420842 CAPLUS
DOCUMENT NUMBER: 91:20842
TITLE: A new type of indolic alkaloid dimer. Structural study and x-ray analysis of ervafoline
AUTHOR(S): Henriques, A.; Kan-Fan, C.; Ahond, A.; Riche, C.; Husson, H. P.
CORPORATE SOURCE: Inst. Chim. Subst. Nat., CNRS, Gif-sur-Yvette, Fr.
SOURCE: Tetrahedron Letters (1978), (39), 3707-10
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: French
GI



I

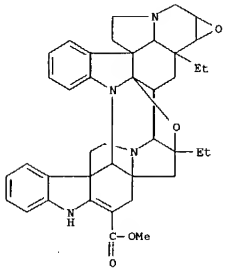
AB The structure and absolute configuration of ervafoline (I), an indolic alkaloid dimer isolated from Stenosolen heterophyllus, was determined from spectral data and by x-ray crystallog. anal. A biosynthetic scheme for the formation of I is reported.

IT **70545-44-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(of Stenosolen heterophyllus, crystal structure and absolute configuration of)

RN 70545-44-7 CAPLUS

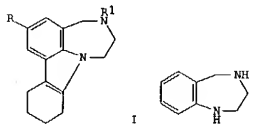
CN 13a,20a,23-Metheno-8H,10H,23H-indolo[2''',3''':5'',6'']azocino[1'',2'':1',5']pyrrolo[2',3':4,5]furo[2,3-m]oxireno[6,7]indolizino[8,1-cd]carbazole-19-carboxylic acid, 9b,21a-diethyl-5,6,8a,9a,9b,9c,10a,10b,12,13,18,20,21,21a-tetradecahydro-, methyl ester, (4bR,8aR,9aS,9bS,9cS,10aS,10bS,13aS,20aS,21aS,22aR,23S,24S)- (9CI) (CA INDEX NAME)

L5 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

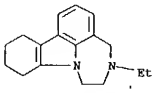
ACCESSION NUMBER: 1977:121311 CAPLUS
DOCUMENT NUMBER: 86:121311
TITLE: Synthesis of 1,2,3,4,8,9,10,11-octahydro[1,4]diazepino[6,5,4-jk]carbazole and related compounds
AUTHOR(S): Kim, Dong Han
CORPORATE SOURCE: Res. Div., Wyeth Lab., Inc., Philadelphia, PA, USA
SOURCE: Journal of Heterocyclic Chemistry (1976), 13(6), 1187-92
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB 1,2,3,4,8,9,10,11-Octahydro[1,4]diazepino[6,5,4-jk]carbazole (I, R = R1 = H) was prepared from 2,3,4,5-tetrahydro-1H-benzodiazepine (II) via acetylation, nitrosation, reduction, cyclization with cyclohexanone, and deacetylation. Similarly prepared were I (R = Cl, R1 = Ac; R = H, R1 = Me).

IT **57756-50-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)

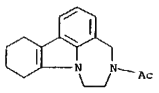
RN 57756-50-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



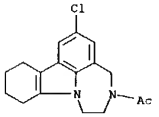
IT **57756-41-9P 57756-42-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deacetylation of)

RN 57756-41-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

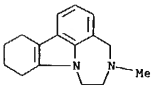


RN 57756-42-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-6-chloro-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



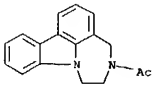
IT **57756-43-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and quaternization of)

RN 57756-43-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-3-methyl- (9CI) (CA INDEX NAME)



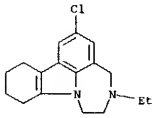
IT **57756-46-4P 57756-54-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

RN 57756-46-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



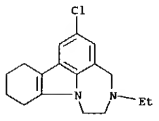
L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 57756-54-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



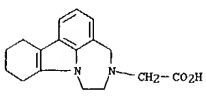
IT **57716-82-2P 57716-83-3P 57716-84-4P**
57756-44-2P 57756-45-3P 57756-48-6P
57756-49-7P 57756-51-1P 57756-52-2P
57756-53-3P 61471-61-2P 62088-85-1P
62088-86-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 57716-82-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

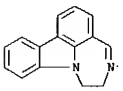
RN 57716-83-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole-3(4H)-acetic acid, 1,2,8,9,10,11-hexahydro-, sodium salt (9CI) (CA INDEX NAME)



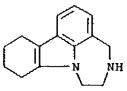
● Na

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 57716-84-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2-dihydro- (9CI) (CA INDEX NAME)

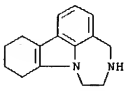


RN 57756-44-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 57756-45-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

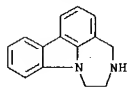


RN 57756-48-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-, sulfate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 57756-47-5
CMF C15 H14 N2

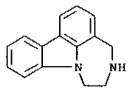
L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



CM 2

CRN 7664-93-9
CMF H2 O4 S

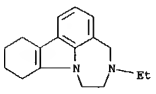
RN 57756-49-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

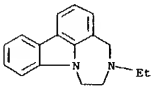
RN 57756-51-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

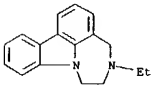


● HCl

RN 57756-52-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



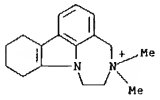
RN 57756-53-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

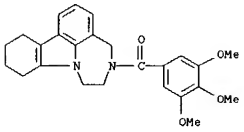
RN 61471-61-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazolium, 1,2,3,4,8,9,10,11-octahydro-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

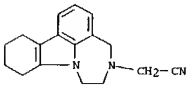


● I⁻

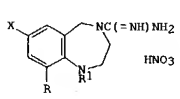
RN 62088-85-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-3-(3,4,5-trimethoxybenzoyl)- (9CI) (CA INDEX NAME)



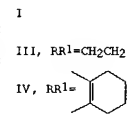
RN 62088-86-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole-3(4H)-acetonitrile, 1,2,8,9,10,11-hexahydro- (9CI) (CA INDEX NAME)



L5 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1977:114977 CAPLUS
DOCUMENT NUMBER: 86:114977
TITLE: Derivatives of tetrahydro-1,4-benzodiazepines as potential antihypertensive agents
AUTHOR(S): Kim, Dong Han; Baum, Thomas
CORPORATE SOURCE: Med. Chem. Sect., Wyeth Lab., Inc., Philadelphia, PA, USA
SOURCE: Journal of Medicinal Chemistry (1977), 20(2), 209-12
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



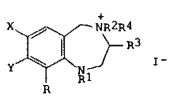
I



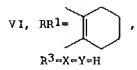
III, RR1=CH2CH2

IV, RR1=

II



V, RR1=CH2CH2, R2=R4=Me, R3=X=Y=H



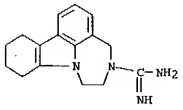
VI, RR1= , R2=R4=Me, R3=X=Y=H

AB Reduction of benzodiazepinedione derivs. followed by amidination with 1-amidino-3,5-dimethylpyrazole nitrate [38184-47-3] gave 3 amidino derivs. (I; R = H; R1 = H, Me; X = H, Cl), while reaction of the reduction products with MeI gave 6 quaternary salts (II; R = H; R1 = H, Me, Et; R2 = Me; R3 = H, Me; R4 = Me, Et; X = H, Cl, MeO; Y = H, MeO). Bridged analogs III [61471-57-6], IV [**61471-59-8**], V [61471-60-1], and VI [**61471-61-2**] were also prepared In tests for antihypertensive activity in conscious rats 1,2,3,5-tetrahydro-4H-1,4-benzodiazepine-4-carboxamidine nitrate (I; R = R1 = X = H) [58483-85-5], its Me derivative (I; R = X = H; R1 = Me) [58483-89-9], II(R = R1 = R3 = X = Y = H; R2 = R4 = Me) [57247-57-1], and V gave marked blood pressure lowering (>50 mm Hg) at oral doses of 75 mg/kg. Structure-activity relations and evidence linking activity to sympathetic nervous system impairment are discussed.
IT **61471-59-8P 61471-61-2P**

L5 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and antihypertensive activity of)
RN 61471-59-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole-3(4H)-carboximidamide, 1,2,8,9,10,11-hexahydro-, mononitrate (9CI) (CA INDEX NAME)

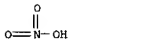
CM 1

CRN 61471-58-7
CMF C16 H20 N4

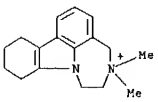


CM 2

CRN 7697-37-2
CMF H N O3

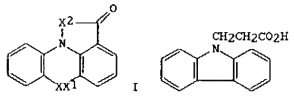


RN 61471-61-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazolium, 1,2,3,4,8,9,10,11-octahydro-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)

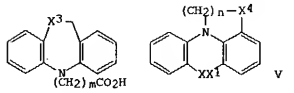


● I⁻

L5 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:560051 CAPLUS
DOCUMENT NUMBER: 85:160051
TITLE: Synthesis and properties of some tetracyclic derivatives of 9H-carbazole, 10,11-dihydro-5H-dibenz[b,f]azepine, and 5,11-dihydrodibenz[b,e][1,4]oxazepine
AUTHOR(S): Toscano, Luciano; Seghetti, Ennio; Fioriello, Giuseppe
CORPORATE SOURCE: Dep. Synth. Chem. Res., Pierrel S.p.A., Milan, Italy
SOURCE: Journal of Heterocyclic Chemistry (1976), 13(3), 475-80
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 85:160051
GI



I II

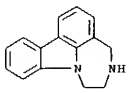


V

III, X3=CH2, m=2
IV, X3=O, m=3

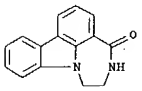
AB The tetracyclic heterocycles I (XX1 = -, X2 = (CH2)2; XX1 = X2 = (CH2)2; XX1 = CH2O, X2 = (CH2)3; XX1 = OCH2, X2 = (CH2)3], prepared by cyclization of the carbazole II, dibenzazepine III, or dibenzoxazepine IV, were treated with polyphosphoric acid-NaN3 to give the lactams V (XX1 = -, X4 = NHCO, n = 2; XX1 = (CH2)2, X4 = NHCO, n = 2; XX1 = CH2O, X4 = CONH, n = 3; XX1 = OCH2, X4 = CONH, n = 3).
IT **57756-49-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and formylation of)
RN 57756-49-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

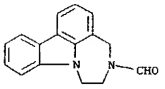


● HCl

IT **59705-06-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 59705-06-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazol-4(1H)-one, 2,3-dihydro- (9CI) (CA INDEX NAME)

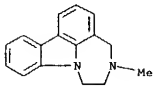


IT **60579-06-8P 60579-08-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 60579-06-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole-3(4H)-carboxaldehyde, 1,2-dihydro- (9CI) (CA INDEX NAME)

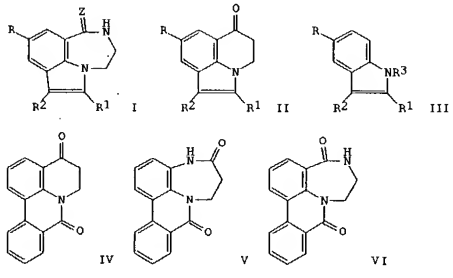


RN 60579-08-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-3-methyl- (9CI) (CA INDEX NAME)

L5 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



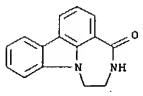
L5 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:432967 CAPLUS
DOCUMENT NUMBER: 85:32967
TITLE: Schmidt reaction of tetrahydroquinolone derivatives
AUTHOR(S): Haerter, H. P.; Stauss, U.; Osiecki, J. H.; Schindler, O.
CORPORATE SOURCE: Forschungsinst., Wander A.-G., Bern, Switz.
SOURCE: Chimia (1976), 30(2), 50-2
CODEN: CHIMAD; ISSN: 0009-4293
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 85:32967
GI



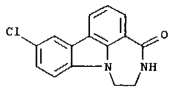
AB Diazepinones I [Z = O; R = H, Cl; R1 = H, Et, R2 = Me, R1R2 = (CH)4, CH:CHCCl:CH, (CH2)4; R = Cl, R1 = R2 = Me, R1R2 = (CH2)4] were obtained by Schmidt reaction of the tetrahydroquinolones II. Structure of I (Z = O) was confirmed by reduction to I (Z = H2). II were prepared by treating III (R3 = H) with CH2:CHCN, ethanolysis of III (R3 = CH2CH2CN), hydrolysis of III (R3 = CH2CH2CO2Et), and cyclization of III (R3 = CH2CH2CO2H). Schmidt reaction of IV, similarly prepared from phenanthridone, gave isomeric diazepinones V and VI.

IT **59705-06-5P 59705-07-6P 59705-08-7P 59705-09-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 59705-06-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazol-4(1H)-one, 2,3-dihydro- (9CI) (CA INDEX NAME)

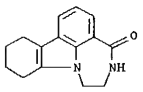
L5 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



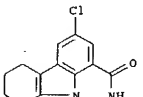
RN 59705-07-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazol-4(1H)-one, 9-chloro-2,3-dihydro- (9CI) (CA INDEX NAME)



RN 59705-08-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazol-4(1H)-one, 2,3,8,9,10,11-hexahydro- (9CI) (CA INDEX NAME)

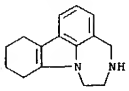


RN 59705-09-8 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazol-4(1H)-one, 6-chloro-2,3,8,9,10,11-hexahydro- (9CI) (CA INDEX NAME)

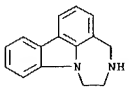


IT **57756-45-3P 57756-47-5P 59705-11-2P 59705-12-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 57756-45-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

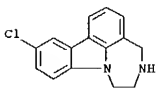
L5 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



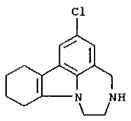
RN 57756-47-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



RN 59705-11-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 9-chloro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



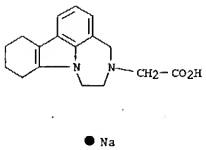
RN 59705-12-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



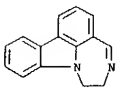
L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:31150 CAPLUS
DOCUMENT NUMBER: 84:31150
TITLE: 1,4-Diazepino[6,5,4-jk]carbazoles
INVENTOR(S): Kim, Dong H.
PATENT ASSIGNEE(S): American Home Products Corp., USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3914250	A	19751021	US 1974-493807	19740801

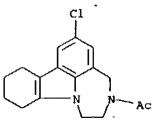
PRIORITY APPLN. INFO.: US 1974-493807 19740801
GI For diagram(s), see printed CA Issue.
AB Anticonvulsant diazepinocarbazoles I-IV (R = H, Ac, Me, Et, CH2CO2Na; R = H, Cl) (11 compds.) were prepared from benzodiazepine IV (R = H, Me, R1 = H, Cl). Thus, I (R = Ac, R1 = H), obtained from IV (R = R1 = H) via acetylation, nitrosation, reduction using Zn dust and HOAc, and then condensation with cyclohexanone, underwent deacetylation to I (R = R1 = H) and then N-alkylation with BrCH2CO2Et to give I (R = CH2CO2Na, R1 = H). Refluxing a xylene solution of I (R = Ac, R1 = H) with Pd/C gave II, which was deacetylated to II (R = R1 = H) or was reduced with LiAlH4 to II (R = Et, R1 = H). III (R1 = H) was obtained from I (R = Ac, R1 = H) by successive reduction with LiAlH4 and then dehydrogenation using Pd/C. I (R = Ac, R1 = H) had an ED50 of 112 mg/kg against extensor seizures in mice.
IT **57716-83-3P 57716-84-4P 57756-42-0P 57756-45-3P 57756-47-5P 57756-50-0P 57756-52-2P 57756-54-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and anticonvulsant activity of)
RN 57716-83-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole-3(4H)-acetic acid, 1,2,8,9,10,11-hexahydro-, sodium salt (9CI) (CA INDEX NAME)



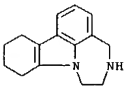
L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
RN 57716-84-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2-dihydro- (9CI) (CA INDEX NAME)



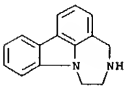
RN 57756-42-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-6-chloro-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



RN 57756-45-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

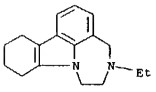


RN 57756-47-5 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

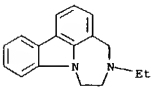


RN 57756-50-0 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)

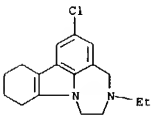
L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 57756-52-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

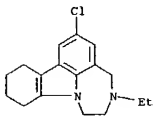


RN 57756-54-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro- (9CI) (CA INDEX NAME)



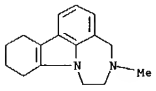
IT **57716-82-2P 57756-43-1P 57756-44-2P 57756-48-6P 57756-49-7P 57756-51-1P 57756-53-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 57716-82-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 6-chloro-3-ethyl-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

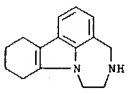


● HCl

RN 57756-43-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-3-methyl-(9CI) (CA INDEX NAME)



RN 57756-44-2 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

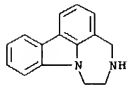


● HCl

RN 57756-48-6 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-, sulfate (2:1) (9CI) (CA INDEX NAME)

CM 1

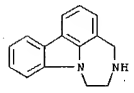
CRN 57756-47-5
CMF C15 H14 N2



CM 2

CRN 7664-93-9
CMF H2 O4 S

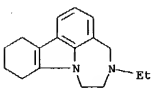
RN 57756-49-7 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

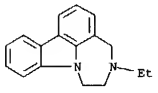
RN 57756-51-1 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4,8,9,10,11-octahydro-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



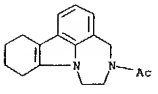
● HCl

RN 57756-53-3 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-ethyl-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

IT **57756-41-9P 57756-46-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, reaction, and anticonvulsant activity of)
RN 57756-41-9 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4,8,9,10,11-octahydro-(9CI) (CA INDEX NAME)



RN 57756-46-4 CAPLUS
CN [1,4]Diazepino[6,7,1-jk]carbazole, 3-acetyl-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)